

1 WE CLAIM:

2 1. A method for developing traffic messages comprising:
3 obtaining data indicating traffic speed at a plurality of locations on a road
4 network, each of said locations assigned a unique location reference code;
5 evaluating the data indicating traffic speed for said location reference codes
6 assigned to locations along a road of said road network; and
7 grouping location reference codes along said road having related traffic speeds
8 into at least one congestion event along said road.

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10 2. The method of Claim 1 wherein said locations assigned said location
11 reference codes grouped into said congestion event are contiguous along said road.

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13 3. The method of Claim 1 wherein each of said locations grouped into said
14 congestion event are located within a predetermined distance of another of said locations
15 within said congestion event.

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17 4. The method of Claim 1 wherein said congestion event comprises a
18 beginning location reference code at which said related traffic speed begins along said
19 road and a number of following location reference codes having said related traffic
20 speeds.

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22 5. The method of Claim 1 wherein said congestion event comprises a
23 direction.

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25 6. The method of Claim 1 wherein said congestion event comprises a
26 beginning location reference code at which said related traffic speed begins along said
27 road and a end location reference code at which said related traffic speed ends on said
28 road.

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1 7. The method of Claim 1 wherein said congestion event comprises a
2 congestion speed value representative of the related traffic speeds of the grouped location
3 reference codes.

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5 8. The method of Claim 1 wherein said congestion event comprises an
6 average speed of the grouped location reference codes.

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8 9. The method of Claim 1 wherein said congestion event comprises a
9 congestion event code representing a level of congestion corresponding to said related
10 traffic speed.

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12 10. The method of Claim 1 further comprising obtaining data indicating an
13 expected duration of said traffic speed at said plurality of locations.

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15 11. The method of Claim 10 wherein said congestion event comprises a
16 duration indicating when said related traffic speed is expected to change.

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18 12. The method of Claim 1 further comprising transmitting said congestion
19 event as a traffic message.

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21 13. The method of Claim 12 further comprising:
22 prior to transmitting said congestion events, determining a road distance
23 associated with each of said congestion events, said road distance for each congestion
24 event being a distance from a beginning location reference code at which said related
25 traffic speed begins along said road to a end location reference code at which said related
26 traffic speed ends on said road; and

27 said congestion events having longer road distances being transmitted before said
28 congestion events having shorter road distances.

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1 14. A method for developing traffic messages comprising:
2 using a plurality of location reference codes assigned to a plurality of locations
3 along a road;
4 obtaining data indicating traffic speed at said locations represented by said
5 location reference codes;
6 aggregating said location reference codes having traffic speeds within a
7 predetermined range of traffic speeds, wherein said aggregated location reference codes
8 representing contiguous locations along said road; and
9 creating a traffic message from said aggregated location reference codes.

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11 15. The method of Claim 14 wherein said congestion event comprises a
12 beginning location reference code at which said traffic speeds within said predetermined
13 range begins along said road and a number of following location reference codes having
14 said traffic speeds within said predetermined range.

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16 16. The method of Claim 14 wherein said congestion event comprises a
17 beginning location reference code at which said traffic speeds within said predetermined
18 range begins along said road and a end location reference code at which said traffic speed
19 within said predetermined range ends on said road.

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21 17. The method of Claim 14 wherein said congestion event comprises a
22 congestion speed value representative of said speeds of the aggregated location reference
23 codes.

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25 18. The method of Claim 14 wherein said congestion event comprises a
26 congestion event code representing a congestion level corresponding to said
27 predetermined range of traffic speeds.

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1 19. A method for developing traffic messages comprising:
2 obtaining data indicating traffic speed at a first location, at a second location, and
3 at a third location, said first, second and third locations are located along a road;
4 comparing the traffic speed of said first location to the traffic speed of said second
5 location;
6 if a difference between said the traffic speed of said first location and the traffic
7 speed of said second location is within a threshold value,
8 grouping the first location and the second location into a congestion event;
9 comparing an average traffic speed of said first location and said second
10 location to the traffic speed of said third location:
11 if a difference between said average traffic speed and the traffic speed of said
12 third location is within said threshold value, and
13 grouping said third location into said congestion event.

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15 20 The method of Claim 19 therein said congestion event comprises a
16 congestion speed value representative of said speeds of said grouped locations.

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18 21. The method of Claim 19 wherein said congestion event comprises a
19 congestion event code.

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21 22. The method of Claim 19 further comprising obtaining data indicating
22 durations of said traffic speed at said first location, said second location and said third
23 location; and said congestion event comprises a congestion duration indicating when said
24 traffic speed of one of said grouped locations is expected to change.

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1 23. A method of developing traffic messages comprising:
2 obtaining data indicating traffic flow at a plurality of locations on a road network;
3 and
4 aggregating said locations along the road network having related traffic flow into
5 at least one congestion event along said road, wherein said aggregated locations are
6 adjacent on said road network and said aggregated locations have corresponding traffic
7 flow within a predetermined threshold.
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